WHAT IS CLAIMED IS:

1. A photovoltaic array comprising:

a plurality of elongated rails for being mounted on a support surface projecting upwardly therefrom and extending in a spaced and parallel relationship to each other;

each rail having an extruded resin construction including a lower base and an upper cap that cooperate to define a pair of grooves opening in opposite directions from each other; and

rectangular photovoltaic modules having edges that are received by the grooves of the rails so as to be mounted above the support surface in a spaced relationship from the support surface.

2. A photovoltaic array as in claim 1 wherein the lower base and upper cap of each rail are extruded as separate pieces and secured to each other to define the oppositely opening pair of grooves.

3. A photovoltaic array as in claim 1 wherein the photovoltaic modules are arranged in pairs with the modules of each pair abutting each other, and each pair of photovoltaic modules being spaced along the elongated lengths of the rails from each adjacent pair of modules to provide openings therebetween.

4. A photovoltaic array as in claim 3 wherein the photovoltaic modules have elongated rectangular shapes that have lengths about twice as long as widths thereof, and each pair of photovoltaic modules having elongated edges along lengths thereof abutted with each other so each pair of modules has a generally square shape.

5. A photovoltaic array as in claim 1 further including cross members that extend between the lower bases of the rails to space the rails from each other.

6. A photovoltaic array as in claim 5 wherein the cross members are located within openings between the photovoltaic modules.

7. A photovoltaic array as in claim 5 further including electrical wiring that is supported by the cross members.

8. A photovoltaic array as in claim 7 wherein the cross members have upwardly opening shapes that receive the electrical wiring.

9. A photovoltaic array as in claim 8 wherein the cross members have a lower floor and a pair of sides that extend upwardly from the lower floor in a converging shape toward each other and have upper edges that are spaced from each other.

10. A photovoltaic array as in claim 1 wherein the lower base and upper cap of each rail are extruded as separate pieces and secured to each other to define the oppositely opening pair of grooves; each lower base including a lower flange for mounting on the surface, a stem that projects upwardly from the lower flange, and an upper extremity of a T shape that defines an upwardly opening slot extending along the elongated length of the elongated rail, and each upper cap having a T shape including a stem that projects downwardly and is received by the slot in the T-shaped upper extremity of the lower base, and each upper cap having an upper cross bar that extends in opposite directions from the stem thereof to cooperate with the T-shaped upper extremity of the lower base in defining the pair of grooves that open in opposite directions from each other to receive the edges of the photovoltaic modules that are mounted by the rails on the support surface.

11. A photovoltaic array as in claim 10 wherein the upper extremity of the lower base of each rail has a pair of upwardly projecting stops respectively located on opposite sides of the slot to position the modules horizontally with respect to the rails.

12. A photovoltaic array as in claim 8 wherein the elongated rails have the lower flange of the lower base provided with a greater lateral width along the elongated length thereof than the T-shaped upper extremity of the lower base and than the upper cross bar of the upper cap.

13. A photovoltaic array as in claim 8 wherein the stem of the lower base has scallops for reducing the resin utilized.

14. A photovoltaic array as in claim 1 wherein the lower base and upper cap of each rail are extruded as separate pieces and secured to each other to define the oppositely opening pair of grooves, each base including a lower end for mounting on the support surface, a stem that projects upwardly from the lower end, an upper extremity of a T shape that defines an upwardly opening slot extending along the elongated length of the elongated rail and the upper extremity of the lower base including downwardly extending flanges for securing flashing; and each upper cap having a T shape including a stem that projects downwardly and is received by the slot in the T-shaped upper extremity of the lower base, and each upper cap having an upper cross bar that extends in opposite directions from the stem thereof to cooperate with the T-shaped upper extremity of the lower base in defining the pair of grooves that open in opposite directions from each other to receive the edges of the photovoltaic modules that are mounted by the rails on the support surface.

15. A photovoltaic array as in claim 10 further including fasteners for securing the upper cap to the lower base.

16. A photovoltaic array as in claim 14 further including fasteners for securing the upper cap to the lower base.

17. A photovoltaic array as in claim 15 wherein the upper cap includes an elongated extruded formation that facilitates centering alignment of drilled holes for receiving the fasteners.

18. A photovoltaic array as in claim 10 wherein the lower bases and upper caps of the elongated rails are extruded from a first resin and wherein the grooves of the rails include pads of a second material that is softer than the first resin to accommodate for thickness variations in the photovoltaic module edges received by the grooves.

19. A photovoltaic array as in claim 14 wherein the lower bases and upper caps of the elongated rails are extruded from a first resin and wherein the grooves of the rails include pads of a second material that is softer than the first resin to accommodate for thickness variations in the photovoltaic module edges received by the grooves.

20. A photovoltaic array as in claim 19 wherein the lower base is extruded entirely from the first resin and wherein the upper cap is coextruded from the first resin and a second resin which constitutes the second material and provides the pads which are located on the upper cross bar within the grooves.

21. A photovoltaic array as in claim 10 wherein the upwardly opening slot of the lower base and the downwardly projecting stem of the upper cap have connection formations for providing securement of the upper cap to the lower base.

22. A photovoltaic array as in claim 10 further including cross members that are supported by and extend between the T-shaped upper extremities of the lower bases of the rails within openings between the photovoltaic modules to space the rails from each other.

23. A photovoltaic array as in claim 14 further including cross members that are supported by and extend between the T-shaped upper extremities of the lower bases of the rails within openings between the photovoltaic modules to space the rails from each other.

24. A photovoltaic array as in claim 22 wherein the cross members have elongated shapes extruded from resin with an upwardly opening shape, and electrical wiring received by the upwardly opening cross members.

25. A photovoltaic array as in claim 1 wherein the support surface is a roof having a membrane on which the rails are mounted.

26. A roof photovoltaic array as in claim 25 further including connections that secure the lower bases of the rails to the membrane on the roof.

27. A roof photovoltaic array as in claim 26 wherein the connections include elongated connector strips, the lower bases of the rails having openings through which

the connector strips extend, and the connector strips having ends secured to the membrane on the roof.

28. A method of deploying a photovoltaic module on a support surface comprising:

providing a photovoltaic module including:

a panel having an elongated edge that extends along an elongated axis of the panel and a transverse edge having a length less than the length of the elongated edges and extending substantially perpendicular to the elongated axis, and

an attachment member extending along the elongated edge; and

coupling the attachment member to a support segment extending along a direction substantially perpendicular to the elongated axis such that the attachment member is isolated from the support surface.

29. The method of claim 28 wherein the support segment comprises a rail.

30. The method of claim 28 further comprising attaching the attachment member to the elongated edge of the module.

31. The method of claim 30 wherein attaching the attachment member to the elongated edge includes positioning the attachment member on the elongated edge such that the attachment member projects away from the elongated edge and substantially parallel to a surface of the panel.

32. The method of claim 28 wherein the support segment only contacts attachment members and the support surface.

33. The method of claim 28 wherein the photovoltaic module includes a second elongated edge that extends along the elongated axis, and a second attachment member extending along the second elongated edge and the method further includes coupling the second attachment member to a second support segment extending along a direction perpendicular to the elongated axis.

34. The method of claim 28 wherein coupling the attachment member to the support segment includes positioning the attachment member relative to the support segment such that the support segment extends along a portion of the transverse edge that is shorter than the total length of the transverse edge.

35. A method of deploying a photovoltaic module on a support surface comprising:

attaching attachment members to a pair of parallel edges of a panel to form a photovoltaic module, the attachment members extending along an elongated axis;

coupling the attachment members to a support segment extending along a direction substantially perpendicular to the elongated axis; and

coupling the support segment to a support surface such that the panel is isolated from the support surface.

36. The method of claim 35 wherein coupling the attachment member to the support segment includes positioning the attachment member relative to the support segment such that the panel is isolated from the support segment.

37. A method of deploying a photovoltaic array, the method comprising:

providing a plurality of photovoltaic modules, each photovoltaic module having a panel having an elongated edge that extends along an elongated axis of the panel and a transverse edge having a length shorter than the length of the elongated edges and extending substantially perpendicular to the elongated axis, and an attachment member extending along the elongated edge; and

positioning attachment members on support segments extending along a direction substantially perpendicular to the elongated axis in a spaced and parallel relationship to each other; and

coupling the support segments to a support surface such that the attachment members are isolated from the support surface.

38. The method of claim 37 wherein providing a plurality of photovoltaic modules includes attaching the attachment member to the elongated edge of the photovoltaic module.

39. The method of claim 37 wherein providing a plurality of photovoltaic modules includes forming the photovoltaic modules such that each photovoltaic module is able to be isolated from other photovoltaic modules.

40. A photovoltaic array comprising:

a plurality of photovoltaic modules, each module having:

a panel having an elongated edge that extends along an elongated axis of the panel and a transverse edge having a length shorter than the length of the elongated edges and extending substantially perpendicular to the elongated axis, and

an attachment member extending along the elongated edge;

a plurality of support segments positioned on a support surface and extending along a direction substantially perpendicular to the elongated axis, each support segment being in a spaced and substantially parallel relationship relative to each other; and

wherein the attachment member couples each photovoltaic module to at least two support segments such that the panels are isolated from the support segments and the attachment members are isolated from the support surface.

41. A photovoltaic array comprising:

a plurality of support segments positioned on a support surface and extending along a support axis, each support segment being in a spaced and substantially parallel relationship to each other;

a plurality of photovoltaic modules, each photovoltaic module having:

a panel having an elongated edge and a transverse edge having a length shorter than the length of the elongated edge and extending perpendicular to the elongated edge, and

an attachment member attached to elongated edges of each photovoltaic module and coupled to a support segment such that the elongated edges of the photovoltaic module are substantially perpendicular to the support axis;

wherein the panels are isolated from the support segments and the attachment members are isolated from the support surface when the attachment member is coupled to the support segment.

42. A photovoltaic module comprising:

a panel including:

an elongated edge that extends along an elongated axis of the panel, and

a transverse edge having a length that is shorter than the length of the elongated edge and extending substantially perpendicular to the elongated axis; and

an attachment member extending along the elongated edge of the panel.

43. A photovoltaic array deployment system comprising:

a plurality of support segments;

a plurality of photovoltaic modules, each module having:

a panel having an elongated edge and a transverse edge having a length shorter than the length of the elongated edges and extending substantially perpendicular to the elongated edge, and

an attachment member extending along the elongated edge and configured to couple to at least one of the plurality support segments.